PolyGlobal Technical Datasheet

Nylon Unfilled PA6 & PA66

PolyGlobal's Nylon (Unfilled) range incorporates both PA6 and PA66 options. For detailed comparisons please see polyglobal.co.uk/materials. Key performance characteristics and advantages of PolyGlobal's Unfilled Nylons include:

- ✓ High strength & toughness
- ✓ Good surface lubricity & chemical resistance
- ✓ Better surface finish in comparison to GF
- ✓ Less abrasive against mating surfaces

Grade	UoM	PA6 Domamid 6AF	PA6 Econamid ORO 6	PA6 Econamid 6FL	PA66 Vydyne 21SPC
Density	g/cm³	1.14	1.14	1.13	1.14
Tensile Modulus	MPa	3100	3050	2800	3000
Tensile Strength at Break	MPa	80	80	65	81
Elongation at Break	%	50	40	12	35
Flexural Modulus	MPa	2700	2600	2000	2900
Izod impact notched	kJ/m²	4	4	5	6
Melting Point	°C	222	222	220	260
Heat Deflection Temperature at 1.80 Mpa	°C	70	65	75	72
VICAT Softening Temperature (50°C/h-50N)	°C	205	200	205	236
Colour		Natural	Black	Natural	Natural

Definition of Terms	
Tensile Modulus	A measure of the material's resistance to elastoc deformation. The higher the number, the more rigid the material.
Tensile Strength	The force needed to stretch a material until it breaks.
Elongation at Break	How much a material can stretch before it breaks, as a % of its original dimensions.
Flexural Modulus	The flexural modulus of a material is a physical property denoting the ability for that material to bend. The higher the number the greater the force needed to bend the material.
Izod Impact Notched	Used to determine the impact resistance of materials, the higher the number the greater the energy lost during impact indicating a better resistance to deformation.
Heat Deflection Temperature	The heat deflection temperature gives an indication at what temperature the material starts to "soften" when exposed to a fixed load.
VICAT Softening Temperature	The determination of the softening point for materials that have no definite melting point.